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THE PLACE OF TECHNIQUE IN ELEMENTARY MANUAL TRAINING.

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OF all the theories which may engage the attention of the manual-training teacher, I can think of none which will have more influence upon his daily practice in the class-room than will his theory as to the rightful place of technique in the work under his charge. If this be true, our subject is, then, of first importance and its consideration a matter of practical utility.

Someone has said that most discussions would be unnecessary, or even impossible, if those engaged in them would first concern themselves with mere definitions. At the risk of making the remainder of this discussion unnecessary, may I quote from the definitions of "technique" given in the *Century* and *Standard* dictionaries:

Technique—the method of performance or manipulation in any art, or that peculiar to any artist or school; technical skill or manipulation; manner of artistic performance; the details, collectively considered, of mechanical performance in any art; also mechanical skill in artistic work; used especially of the practical details of any fine art.

If we are to have a suitable basis for discussion, it is evident that we must distinguish at the outset between the "method of performance" and that exactitude in performance which the words "technical skill or manipulation" and "mechanical skill in artistic work" may imply. Let us accept as a basis for discussion the definition first given, "the method of performance or manipulation." For example, one might clamp a plane in the vise in an inverted position and draw or push a piece of wood over it against the plane iron. He might become so skilful in this performance that he could produce a perfectly plane surface on the wood. I think we should agree that he had a faulty "technique," although the performance was one of exactitude or accuracy.

In the light of these prefatory considerations, may I say,

unequivocally, that I believe the development of a correct technique to be of prime importance in manual training, considered as an educational scheme.

Technique in any educational scheme, of which the child is to be the product, should be considered simply as a means to an end, not as an end in itself. It is felt by some that the development of accuracy is one of the objects for which instruction in hand-work is given, and in so far as this is admitted, technique may, in a sense, become an end rather than a means. In my opinion, however, it has no place as an end in elementary manual training, and it is a fair question whether it does not receive far too much attention, as an end, even in secondary schools. Modern educators are agreed that manual training is peculiarly adapted to accomplish for our children certain general educational ends, and it is only as technique enhances the possibility of this accomplishment that it is worthy our consideration.

What are some of the ends which manual training is thought to further? I would mention the quickening of the creative instinct, the inculcation of a respect for labor, the formation of habits of neatness, order, directness, and exactness, and the induction of the logical and rational thinking and doing of one who believes in cause and effect. Let us ask to what extent technique is useful in the acquirement of any one of these objects, for example the development of the creative faculty, bearing in mind that we have agreed to consider technique not as accuracy, but rather as the method of performance. The creative faculty is developed only by personal achievement. The little child is satisfied with comparatively modest achievement so long as it is continuous and progressive. He is also satisfied with a moderate degree of accuracy—or, shall we say, is not disturbed by a considerable inaccuracy—so long as he achieves something which appeals to him as useful and desirable. Nor is he hurt by such inaccuracy so long as he does not fall below his own present standard, which standard is imposed by the project in hand. In the early days of his acquaintance with the plane he may wish to prepare a piece of wood seven inches wide, for use in the kitchen as a cutting-board. It is very probable that

in this early effort he would meet with better success, in planing just to the line, if he were permitted to stoop down and peer under the plane while using it, as we know boys so frequently wish to do. He might thus stop nearer the line, but his shavings would not be so good. His work would be comparatively accurate, but his technique poor. When we reflect, however, that at some future time he may need to produce true surfaces, for glued joints let us say, and will therefore need a better method for the accomplishment of the result which he himself desires, then we realize that this method of using the plane is objectionable. His technique is insufficient. It would seem wiser to have required the boy to use the very best method of handling his plane when engaged in his first planing, and when a slight, or indeed a considerable inaccuracy would not have impaired the usefulness of the product or have discouraged the young worker.

This regard for technique then, this insistence on the employment of the correct method, is important chiefly because it insures the fact that the tools, in the child's hands, shall be tools of ever-increasing efficiency, keeping pace with the enlarging ambitions and advancing standards of the worker and the increasing demands of his problems.

It will be the easier to accede to the demands which this theory makes upon our practice in the class-room, if one is not overanxious for accuracy in results. But this desire for extreme and immediate accuracy is far too common among us. I believe that one of the dangers which beset our work lies in the fact that the facility which it offers for developing accuracy is its most prominent feature; and not only prominent, but alluring. There are many warm advocates of manual training who see in it nothing more than this opportunity to instil a regard for small measurements, square corners, good curves, and a fine finish. Manual-training teachers who believe in the fundamental importance of this feature feel that every method leading to accuracy of results is a good method, and every means of securing it a worthy and legitimate one. It is unfortunate, for the best interests of our children, that the prominence of this feature

hides, from the eyes of so many, the fact that the ability to adapt means to ends is of far more importance than mere fussiness; that ingenuity is more useful than a highly specialized ability, at least for young children; and that the joy of creating is a more elevating motive than the desire to imitate the skilful performance of another. We are in little danger of forgetting the importance of accuracy, but we may easily overlook the fact that an unnatural demand for accuracy destroys the spontaneous effort of the child, and robs him of that sense of reality which is peculiar to manual training as contrasted with much of the academic work. It is this very unreality, of necessity characterizing purely academic work that educational manual training was designed to correct.

In an address an intelligent advocate of manual training, a layman, recently said:

With manual training, however, the immature faculties are not forced out of their normal path; the child is not compelled to lie to you and to himself by pretending to a literary power which he cannot have. One simply employs the natural instinct of the child to use its hands, one merely seizes upon that passion of most children to make something, one but leads into regulated channels the brimming enthusiasm of healthy youth for the bending and shaping of inanimate things.

Is it entirely true that manual-training teachers are never open to the criticism here made, by implication, of the teachers of the humanities? Is it not possible that we sometimes compel a boy to lie to us and to himself by pretending to a mechanical skill which, in the very nature of things, he cannot have? I believe that we should free ourselves from any suspicion of this criticism, and confidently rely on the method commended in the above quotation.

What, then, should be our practice in the class-room regarding the hand-work of our pupils? I sincerely believe that we should view with complacency all "results" so they be the product of the boy stimulated by a vital interest and achieved with the proper tools thoughtfully used. Here, it seems to me, is the specific point at which the teacher has a right to be dogmatic. For the sake of encouraging experimentation and thoughtfulness

he may occasionally permit the use of a wrong tool, but he should at all times insist upon the correct handling of the tool, upon correct position and intelligent use; that is to say, a use that has due regard to the form and construction of the tool and the physical limitations of the worker—a reasonable technique.

Equipped with a knowledge of the correct method of handling tools, supplemented by some habitual application of that knowledge, inspired by a vital interest in real work, and opposed by the demands of reasonable problems, we may feel sure that the pupil will gain, along with the major benefits of manual training—as, joy in creation, respect for labor, habits of order, directness, and rational thinking and doing—the relatively unimportant acquisition of a mechanical precision in his hand-work.

Technique will then hold a chief place in our regard, because it will furnish our pupils with power to manipulate the tools and materials with which manual training deals—a power commensurate with the reasonable demands of the immediate project; and we may be confident that when the demand for accuracy is a timely one, it, like all others, will be adequately met.